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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/995,803 | 11/29/2001 | Kazuhiro Murakami | 011608 | 9181 |
| 23850 | 7590 | 04/22/2004 | EXAMINER | |
| ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006 | | | MAYO III, WILLIAM H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2831 | |

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

A2

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application N . | Applicant(s) | |
| | 09/995,803 | MURAKAMI ET AL. | |
| | Examiner | Art Unit | |
| | William H. Mayo III | 2831 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date . _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 25, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takuya et al (JP Pat Num 05-121139) in view of Kato et al (Pat Num 5,584,122, herein referred to as Kato). Takuya discloses a cable enrolling conductive thin film (Figs 15-22) that is ultrasonic welded to another conductor (abstract) as disclosed above with reference to claim 1. Specifically, with respect to claim 1, Takuya discloses a conductive thin film (210, Fig 16) having a conductor layer (211), a first insulating layer (212) laminated on a front face of the conductor layer (211), and a second insulating layer (214) laminated on a rear face of the conductor layer (211), and an electrical cable (E) having an electrically conductive wire (E1) and an insulating sheath (denoted as C) covering the core wire (E1), wherein the conductor layer (211) of the conductive thin film (210) and the core wire (E1) of the electrical cable (E) are welded to each other (Page 8 of translation pages, paragraph 31). With respect to claim 2, Takuya discloses that the conductive thin film (210) has a first and second insulating layer (212 & 214) and an electrical cable (E) having a sheath (C). With respect to claim 3, Takuya discloses that the sheath (C) of the electrical cable (E) has a round section (Fig 16). with respect to claim 4, Takuya discloses a conductive thin film (210, Fig 16) having a conductor layer (211), a first insulating layer (212) laminated on a front face of the conductor layer (211), and a second insulating layer (214) laminated on a rear face of the conductor layer (211), and an electrical cable (E) having an electrically conductive wire (E1) and an insulating sheath (denoted as C) covering the core wire (E1), wherein the conductor

Art Unit: 2831

layer (211) of the conductive thin film (210) and the core wire (E1) of the electrical cable (E) are welded to each other (Page 8 of translation pages, paragraph 31), wherein the conductive thin film (210) is capable of enrolling the electrical cable (E) to electrically shield the electrical cable (E). With respect to claim 5, Takuya discloses a conductive thin film (210, Fig 16) having a conductor layer (211), a first insulating layer (212) laminated on a front face of the conductor layer (211), and a second insulating layer (214) laminated on a rear face of the conductor layer (211), and a plurality of electrical cables (E, to connect to each conductive layers 211) may be disposed parallel on the conductive thin films (211), wherein each electrical cable (E) has an electrically conductive wire (E1) and an insulating sheath (denoted as C) covering the core wire (E1), wherein the conductor layer (211) of the conductive thin film (210) and the core wire (E1) of the electrical cable (E) are welded to each other (Page 8 of translation pages, paragraph 31), wherein the conductive thin film (210) is capable of enrolling the electrical cable (E) to electrically shield the electrical cable (E). With respect to claim 6, Takuya discloses that the bonded conductive thin film (10) and the electrical cable (E) are utilized in car wiring or electrical machinery, thereby inherently being grounded (Page 11, under Technical Field). With respect to claim 7, Takuya discloses a method of producing a conductive thin sheet (10, Fig 15) comprising the steps of laying the electrical cable (E) on first insulation layer (12), and welding the electrical cable (E) on the first insulation layer (12) by ultrasonic welding so that the conductor layer (11) of the conductive thin film is connected to the core wire (E1) of the electrical cable (E, Page 8 of translation pages, paragraph 33). With respect to claim 6, Takuya discloses that the

Art Unit: 2831

bonded conductive thin film (10) and the electrical cable (E) are utilized in car wiring or electrical machinery, thereby inherently being grounded (Page 11, under Technical Field). With respect to claim 7, Takuya discloses a method of producing a conductive thin sheet (10, Fig 15) comprising the steps of laying the electrical cable (E) on first insulation layer (12), and welding the electrical cable (E) on the first insulation layer (12) by ultrasonic welding so that the conductor layer (11) of the conductive thin film is connected to the core wire (E1) of the electrical cable (E, Page 8 of translation pages, paragraph 33). With respect to claim 8, Takuya discloses a method of producing a conductive thin sheet (10, Fig 15) comprising the steps of laying the electrical cable (E) on first insulation layer (12), and welding the electrical cable (E) on the first insulation layer (12), by ultrasonic welding so that the conductor layer (11) of the conductive thin film is connected to the core wire (E1) of the electrical cable (E, Page 8 of translation pages, paragraph 33). With respect to claim 9, Takuya discloses a method wherein during the step of ultrasonic welding (Fig 17), wherein a horn tip (P1) is opposed to the electrical cable (E) and the anvil (A1) is opposed to the other first and second insulating layers (12 & 14) of the conductive thin film (10). With respect to claim 10, Takuya discloses a method wherein during the step of ultrasonic welding (Fig 17), a horn tip (P) is opposed to the electrical cable (E) and the anvil (A) is opposed to the second insulating layer (14). With respect to claim 11, Takuya discloses a method wherein during the step of ultrasonic welding (Fig 17), the horn tip (P1) and the anvil tip (A1) are moved to come close to each other (Page 8, paragraph 33). With respect to claim 12, Takuya discloses a method wherein during the step of ultrasonic welding (Fig 17), a

horn tip (P) contacts the sheath (C) of the electrical cable (E) and the anvil (A) contacts the second insulating layer (14) of the sheet (10).

However, Takuya doesn't necessarily disclose the welding being done such that the core wire of the electrical cable is not exposed externally (claim 1), nor the first and second insulating layers being welded to the sheath of the electrical cable (claim 2), nor the sheath having a round section or the conductive film overlapping the electrical cable (claims 4-5), nor the method producing the cable wherein the first and second insulating layers being welded to the sheath of the electrical cable (claim 8).

Kato teaches connection method (Figs 17-19) for connecting covered wires to another member by ultrasonic welding, wherein sufficient insulation is kept for the connection portion thereby simplifying the connection work and improving the mechanical strength of the connection portion (Col 3, lines 55-62). Specifically, with respect to claim 1, Kato teaches a conductive thin film (75, Fig 17) and a electrical cable (W1), wherein the ultrasonic welding is done such that the core wire (1) of the electrical cable (W1) is not exposed externally (Fig 17, Col 21, lines 45-51). With respect to claims 2 & 8, Kato teaches a conductive thin film (75, Fig 17) having a conductor layer (1), and an insulating layer (73) laminated on a front face of the conductor layer (1) and the rear face of the conductor layer (1), and an electrical cable (W1) having an electrically conductive wire (1') and an insulating sheath (3) covering the core wire (1'), wherein the conductor layer (1) of the conductive thin film (75) and the core wire (1') of the electrical cable (W1) are ultrasonic welded to each other, wherein the insulating

layer (73) of the thin film (75) is welded to the sheath (3) of the electrical cable (W1, Col 21, lines 35-66).

With respect to claims 1-2 & 8, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the connection portion of Takuya to comprise the insulating layers being welded to the sheath of the electrical cable as taught by Kato because Kato teaches that such a configuration provides a connection structure that simplifies the connection work and improves the mechanical strength of the connection portion (Col 3, lines 55-62).

With respect to claims 4-5, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the sheath of the cable to be round and the conductive film layer to comprise an overlapping section since it has been held that a change in form cannot sustain patentability where involved is only extended application of obvious attributes from a prior art. *In re Span-Deck Inc. vs. Fab-Con Inc.* (CA 8, 1982) 215 USPQ 835.

Response to Arguments

5. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Communication


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-

Art Unit: 2831

272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


WHM III
April 17, 2004

William H. Mayo III
Primary Examiner
Art Unit 2831